



# What are living things?

Living things are those which can produce offspring. Any living thing is called an **ORGANISM**, but we usually call them by common names such as plants and animals.

Everything in the world is either living or non-living. An example of a living thing is a spider or a cactus or a human being. An example of a non-living thing is a piece of rock or a computer. (We use the term non-living instead of dead because, for something to be dead, it must once have been alive. A non-living thing has never been alive.)

Living things can be huge and easy to recognise as being alive, for example, a whale. At the other end of the scale, living things can be so small that it takes a powerful microscope just to

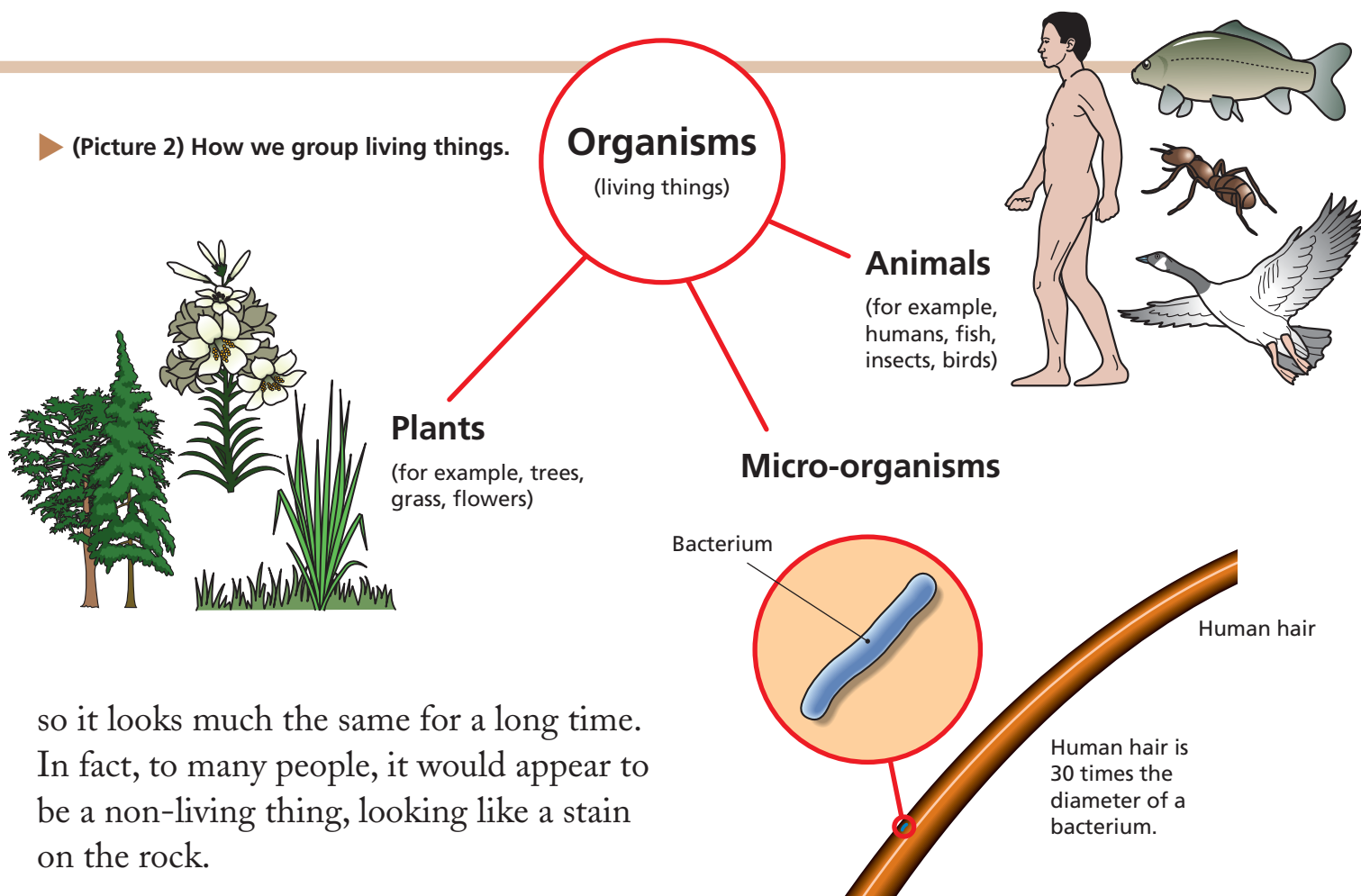
see them, as is the case with tiny creatures called bacteria.

It is not always easy to prove that some things are living. Look, for example, at a lichen (which is actually two different plant-like things growing very close together) growing on a stone (Picture 1). The lichen doesn't seem to move, is often dry and crisp to the touch and grows by less than a millimetre a year,

▼ (Picture 1) The difference between the lichen, which is the coloured patch, and the rock is that the lichen is a living thing, whereas the rock is a non-living thing.



► (Picture 2) How we group living things.



so it looks much the same for a long time. In fact, to many people, it would appear to be a non-living thing, looking like a stain on the rock.

## What living things share

Lichens, humans, trees, whales and all other living things have certain things in common:

- They take in food to make **ENERGY**.
- They give off waste products, even if only heat or a gas.
- They grow, even if slowly.
- They can move, even if only a little.
- They are affected by changes in the world around them (called their **ENVIRONMENT**).
- They change, or **ADAPT** over time to suit their environment.
- They can make new living things (such as babies) of their own kind.

We can use this list to tell living things from non-living things.

▲ (Picture 3) Micro-organisms are tiny living things that have very simple bodies. This is a bacterium on a human hair.

## Organisms

Scientists have a word for any living thing. It is organism. We tend to use more familiar words for many organisms, such as plant and animal, or tree and whale (Picture 2). Very small organisms, that can only be seen through a microscope, are called **MICRO-ORGANISMS**, which many people also call microbes (Picture 3).

### Summary

- There are many different types of living things.
- All living things have some things in common.